

Serial No. 10/080,114  
Amendment Dated February 22, 2006  
Reply to Office Action of December 29, 2005

### **REMARKS/ARGUMENTS**

Reconsideration of the present application is respectfully requested. With this amendment, claims 1-8 are pending.

Claims 9-11, 13, 14, and 16-21 have been cancelled without prejudice.

Claim 1 has been amended. Support for the amendment is found in the claims as originally filed. No new matter has been added by way of the amendments.

#### ***Claim Rejections - 35 USC §112***

Claims 13, 14, 16-18, and 20-21 are rejected under 35 USC §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The Office Action states: "Claims 13 and 17 are indefinite for reciting an improper Markush group of sucrose synthase polynucleotides. The polynucleotides of claim 1 are recited as SEQ ID NO: while Sus1 from maize and Sh1 from maize are not recited as SEQ ID NO:".

Claims 13, 14, 16-18, and 20-21 have been cancelled without prejudice. The cancellation of the claims therefore obviates the rejection.

Claims 1-11, 13-14, 16-18, and 20-21 are rejected under 35 USC §112, first paragraph, because the specification does not reasonably enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention commensurate in scope with the claims.

The Office Action states: "The instant specification has not provided guidance for any modifications to SEQ ID NOS:1-2 or 11-12 that resulted in the production of polynucleotides having both the structural and functional properties as recited in the claims or methods for increasing cellulose production using any of said polynucleotides."

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Claim 1 has been amended. Claims 9-11, 13, 14, and 16-21 have been cancelled without prejudice. It is respectfully submitted that the rejection should not be applied to present claims 1-8 for the reasons described below.

Claim 1 has been amended to recite: "An isolated polynucleotide which encodes a polypeptide with sucrose synthase activity comprising a member selected from the group consisting of: (a) a polynucleotide encoding a polypeptide of SEQ ID NO: 2 or SEQ ID NO: 12; and (b) a polynucleotide of SEQ ID NO: 1 or SEQ ID NO: 11."

The Office Action states: "...the specification, while being enabling for the isolated polynucleotide of SEQ ID NO:1 or 11, a recombinant expression cassette comprising said polynucleotide, host cells, and transgenic plants/seed comprising said polynucleotide...."

Claim 1 has been amended to include enabled subject matter. It is submitted the amendment obviates the rejection. As claims 2-8 depend from claim 1, it is submitted the rejections to claims 2-8 are obviated also.

#### ***Claim Rejections - 35 USC §103***

Claims 13-14, 16-18 and 20-21 are rejected under 35 USC 103(a) as being unpatentable over Barry *et al*, in view of Fu *et al*. The rejection is repeated for reasons of record set forth in the Office Action of 1/28/05.

The Office Action states: "...it would have been obvious to one of ordinary skill in the art at the time the application was filed to use the method of transforming a plant with a DNA encoding a sucrose biosynthetic enzyme for increased level of sucrose or starch as taught by Barry *et al*, and to modify that method by incorporating any one of the known sucrose biosynthetic enzyme encoding DNA including sucrose synthase genes known in the prior art as taught by Fu *et al*, with a reasonable expectation of success."

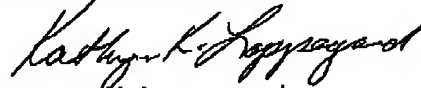
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Claims 13-14, 16-18 and 20-21 have been cancelled without prejudice. It is believed the cancellation obviates the rejection and places the claims in condition for allowance.

### CONCLUSION

In view of the above amendments and remarks, it is submitted that the rejections of the claims under 35 USC §103 and 112 are overcome. It is respectfully submitted that this application is now in condition for allowance. Early notice to this effect is solicited. If in the opinion of the Examiner, a telephone conference would expedite the prosecution of the subject Application, the Examiner is invited to call the undersigned.

Respectfully submitted,



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